

### Remarks

The final Office Action mailed December 15, 2005 provided a final rejection of all pending claims 1-13 and 21-28. This final rejection is respectfully traversed in view of the following discussion.

Voluntary post-final amendments have been proposed to independent claims 1 and 21 to substitute the term "completion" for "execution." This is fully supported by the written description as discussed below, and is provided merely in an attempt to work cooperatively with the Examiner to provide a synonymous term that may be clearer and more easily understood. The amendment is unnecessary for patentability, does not alter or otherwise narrow the scope of the claimed subject matter, and raises no new issues that have not already been considered by the Examiner.

The Applicant therefore requests entry of the amendments. If entry is denied on the basis that the amendment raises new issues requiring further search, the Applicant is content to proceed with pre-appeal brief review of the case based on the existing claim language.

### Comments Regarding Additional Art Submissions

On pages 2 and 3 of the final Office Action, the Examiner provided the following two requests for information from the Applicant:

1. The Examiner requested a submission of "any reference(s) known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the invention as defined by the independent and dependent claims."

2. The Examiner further requested that “support be shown for language added to any original claims on amendment and any new claims.”

The Applicant appreciates these requests as being provided in an effort to advance the present prosecution, and accordingly provides the following response. As to the first request, a review has been made and no additional references are believed known to the Applicant’s Attorney that should be submitted for consideration by the Office beyond that already of record pursuant to 37 CFR 1.56.

With regard to the second request, this apparently extends to both the current proposed after-final amendments and the amendments previously presented in the previous response filed on October 26, 2005.

With regard to the above post-final amendments, the Applicant notes that the specification uses “execution” in the manner understood by those having skill in the art as the carrying out, fully performing, or completion of a command. See e.g., page 7, line 23; page 8, lines 8-9.

With regard to the previously presented amendments, these are discussed in the next section.

#### **Rejection of Claims Under 35 U.S.C. §112**

Claims 1-13 and 25-28 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner identified the language, “*delaying execution of a second data transfer command to transfer*

*speculative data in lieu thereof*” was not described in the specification at the time the application was filed. This is respectfully traversed.

As an initial matter, it is noted that claims 21-24 do not include the above identified claim language, and were therefore not rejected under §112. Nevertheless, because of the request by the Examiner in the preceding section, support for all claims 1-13 and 21-28 will now be discussed.

With regard to the propriety of the written description rejection under §112, it is well settled that the test for sufficiency of support is whether the disclosure of the application reasonably conveys to the artisan that the inventor had possession at that time of the later claimed matter. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555 (Fed. Cir. 1991).

The specification need not describe the invention *in haec verba*. That is, the specification “need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed.” *Eiselstein v. Frank*, 52 F.3d 1035, 1038 (Fed. Cir. 1995). See also *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779 (Fed. Cir. 2002) (“[T]he failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented.”). See also *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313 (Fed. Cir. 2003).

In the present case, one having skill in the art would readily view the originally filed specification as fully supporting the subject matter as now claimed.

Beginning with independent claim 21, this claim is an independent method claim that generally includes, “transferring speculative data instead of second data associated with a second pending command.” (emphasis added). Support for this is provided including in the specification at page 8, lines 18-22, page 9, lines 9-11 and page 17, lines 5-7.

Attention is also directed to the specification at page 6, lines 24-27 (“*To enhance throughput performance, a determination is made whether or not throughput performance is more likely to improve by extending the amount of time for gathering speculative data beyond the latency of the next command (expanding speculative data).*”) This would necessarily be understood by the skilled artisan as “transferring speculative data instead of second data associated with a second pending command” as set forth by claim 21. See also the respective illustrative flows of FIGS. 4-6.

Thus, the Applicant agrees with the Examiner that claims 21-24 fully meet the written description requirement of §112. The Applicant further respectfully submits that claims 1-13 and 25-28 also fully meet the written description requirement of §112.

Independent claims 1 and 25 previously featured “*delaying execution of a second data transfer command to transfer speculative data in lieu thereof.*” As noted above, the term “execution” is a term of art and would be understood to mean “to carry out; to fully perform; to complete.” The phrase “in lieu thereof” clearly is synonymous with “instead of.”

One skilled in the art would thus readily understand the foregoing excerpts from the specification to fully describe the delaying of the execution of a second data transfer command so that speculative data are transferred instead. On this basis, the rejection of

claims 1-13 and 25-28 under §112 based on the previously presented language was without merit.

It is further clear that the newly proposed language of independent claims 1 and 25 is fully supported by the written description as originally filed. Accordingly, reconsideration and withdrawal of the rejection under §112 are respectfully requested.

#### **Rejection of Claims Under 35 U.S.C. §102**

Claims 1-13 and 21-28 were finally rejected under §102(e) as being anticipated by U.S. Published Patent Application No. 2003/0105919 to Olds et al. ("Olds '919"). This rejection is respectfully traversed. As noted previously, this reference is commonly assigned to the assignee of the present application. The Applicant further notes that the subject matter of the present application is believed patentable over this reference even if the subject matter of this reference were available for consideration under §103.

With regard to the rejection of claim 21, Olds '919 at least fails to disclose "*transferring speculative data instead of second data associated with a second pending command.*" The Examiner cited to block 9, lines 6 and block 10 as disclosing this language, but this is not correct. Block 9, lines 6 et seq. merely discloses the delaying of seeking to the target track in order to obtain additional speculative data on the current track.

The delaying of the seeking to the target track has absolutely no effect upon the timing with regard to when the second data are transferred. The Examiner is invited to refer to FIGS. 4-6 of Olds '919, which illustrates different alternatives with regard to the interval of time between the transfer of first and second data (DATA 1 block 150 and DATA 2 block 154, respectively).

Note that irrespective of whether the seek takes place immediately (block 160 in FIG. 4), or is delayed until the last possible moment (block 160 in FIG. 5), or takes place half-way in between (block 160 in FIG. 6), the time required to get to the second data REMAINS THE SAME (x-axis 146 in all three figures). Therefore, the statement that Olds '919 discloses "*transferring speculative data instead of second data associated with a second pending command*" is misplaced and wholly without merit.

Reconsideration and withdrawal of the rejection of claim 21, and for the claims depending therefrom, are accordingly requested on this basis.

With regard to previously presented independent claim 1, Olds '919 similarly is deficient with regard to disclosing, "*delaying execution of a second data transfer command to transfer speculative data in lieu thereof.*" One having skill in the art would not view the initiating of a seek to move a transducer to an ultimate position wherein a data transfer can subsequently take place as constituting "execution of a data transfer command."

Further, in view of the above voluntary amendments to claims 1 and 25 to substitute "completion" for "execution," it is incontrovertible that Olds '919 fails to disclose "*delaying completion of a second data transfer command to transfer speculative data in lieu thereof.*" FIGS. 4-6 show that no matter when the seek (block 160) is initiated, the transfer of the second data (DATA 2 block 154) is performed at the same time.

For the foregoing reasons, the Applicant requests reconsideration and withdrawal of the rejection of independent claims 1 and 25, and for the claims depending therefrom.

**Rejection of Claims Under 35 U.S.C. §103(a)**

Independent claims 1, 21 and 25 were further rejected as being obvious over U.S. Published Patent Application No. US2002/0052985 to Furuumi et al. ("Furuumi '985") in view of "The Cache Memory Book" by Jim Handy ("Handy").

First, since the rejection was limited to the independent claims 1, 21 and 25, the Applicant respectfully agrees with the Examiner's apparent conclusion that dependent claims 2-13, 22-24 and 26-28 are not rendered obvious in view of these references. The Applicant traverses the conclusion, however, that these references render the independent claims 1, 21 and 25 unpatentable under §103(a).

Once again with regard to independent claim 25, neither reference at least teaches or suggests "*transferring speculative data instead of second data associated with a second pending command during a next available latency period for the second command when the speculative data are adjudged as having a utility greater than a utility of the second data*" as set forth by the claim. The Examiner correctly notes that Furuumi '985 is silent with regard to teaching or suggesting speculative data, and instead appears to satisfy cache hits from data retained in cache memory as a result of a prior media access request for that data. See block 0053, lines 12-15; block 0054, lines 1-5.

However, the Examiner is incorrect in asserting that the staging completion reports teach or suggest the above limitation with regard to first and second data blocks. Rather, block 0061 makes it clear that staging is performed "on a physical drive basis" and merely states that the processing may complete in an order different than the order in which the CCW groups are submitted for processing. The last sentence of block 0061 makes it clear that "the command processing is performed in the order staging completed."

There is therefore nothing to teach or suggest in either reference the operation of *transferring speculative data instead of second data associated with a second pending command*, as set forth by claim 21. There is further nothing to teach or suggest in either reference the operation of making such transfer, “*when the speculative data are adjudged as having a utility greater than a utility of the second data*,” as further set forth by claim 21. Since a valid rejection under §103(a) requires that all of the limitations of the claim be taught or suggested by the references, the rejection of claim 21 is improper and should be withdrawn.

Moreover, there is nothing absent hindsight reconstruction that would motivate one skilled in the art to combine the “pre-fetching” of anticipated instructions from a memory of Hardy with Furummi ‘985 to arrive at the claimed combination. Reconsideration and withdrawal of the rejection of claim 21 are respectfully requested on these bases.

The rejection of independent claims 1 and 25 are similarly deficient for these reasons. Reconsideration and withdrawal of the rejection of these claims are respectfully requested on these bases as well.

### Conclusion

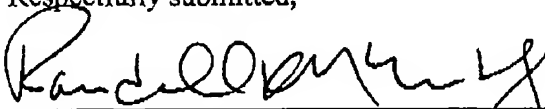
This is intended to be a complete response to the final Office Action mailed December 15, 2005. The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application.



The Examiner is invited to contact the below signed Attorney should any questions arise concerning this response or if a telephonic discussion of the issues discussed herein would advance prosecution of the case.

Respectfully submitted,

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